

## Data Sheet

# living connect<sup>®</sup>, Electronic Radiator Thermostat

### Application



*living connect*<sup>®</sup> is an electronic radiator thermostat for residential use with a Danfoss Link™ system (for further information on the system, please refer to separate data sheet for Danfoss Link™ CC central controller).

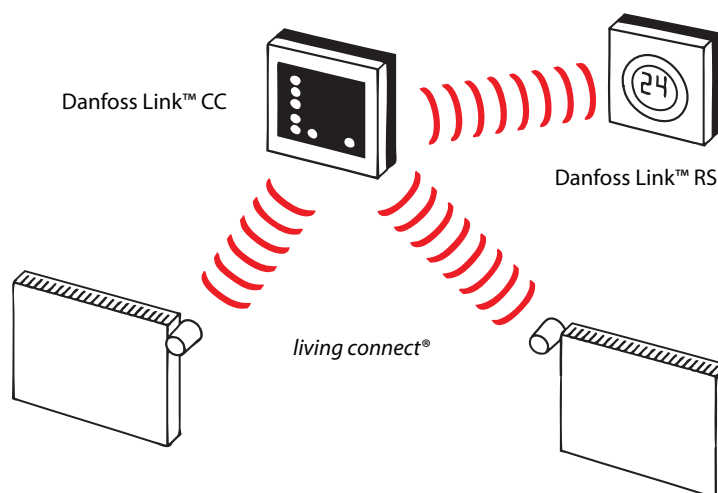
*living connect*<sup>®</sup> is easy to install and is supplied with adapters for all thermostatic valves manufactured by Danfoss and most other radiator valve manufacturers.

*living connect*<sup>®</sup> is battery powered, compact and very easy to operate with only three buttons on the front and wireless connection to Danfoss Link™ CC.

### *living connect*<sup>®</sup> features (in a Danfoss Link™ system):

- Provides a high level of comfort
- Energy saving
- Easy to install
- Easy to operate with only three buttons
- Variable set points and up to 3 set-back periods per day
- PID control (precise control)
- Adaptive learning
- Weekly programs with adjustable temperature set-backs
- Min./max. temp. limitation
- Open-window function
- Holiday/away function
- Valve exercise function
- Frost protection
- Child lock
- Backlit display
- Battery lifetime up to 2 years

### System



The set temperature can be changed on *living connect*<sup>®</sup> by using the buttons or on Danfoss Link™ CC.

The temperature changes is transmitted to the Danfoss Link™ CC, which will synchronize other *living connect*<sup>®</sup> thermostats in the same room.





**Ordering**

Adapters (included)	Instructions - languages	Code no.
Danfoss RA	UK/DE/DK/NL/FR/PL/SE/FI	<b>014G0001</b>
Danfoss RA & K	UK/DE/DK/NL/FR/PL/SE/FI	<b>014G0002</b>
Danfoss RA & K	UK/CZ/RU/TR/HU/HR/SI/IT	<b>014G0003</b>

**Accessories**

Type	Code no.
Adapters for RAV & RAVL valves	<b>014G0250</b>
Adapter for RA valves	<b>014G0251</b>
Adapter for K valves	<b>014G0252</b>
Adapter for RTD valves	<b>014G0253</b>
Adapter for M28 MMA valves	<b>014G0255</b>
Adapter for M28 Herz valves	<b>014G0256</b>
Adapter for M28 Orkli valves	<b>014G0257</b>
Adapter for M28 COMAP valves	<b>014G0258</b>

**Specifications**

Thermostat type	Programmable electronic radiator valve controller
Recommended use	Residential (pollution degree 2)
Actuator	Electromechanical
Display	Grey digital with backlight
Software classification	A
Control	PID
Transmission frequency / range	868.42 MHz / up to 30 m
Power supply	2 x 1.5 V alkaline AA batteries
Power consumption	3 $\mu$ W in standby, 1.2 W when active
Battery life	2 years
Low battery signal	Battery icon will flash in display. If battery level is critical, the whole display will flash.
Ambient temperature range	0 to 40 °C
Transportation temperature range	-20 to 65 °C
Maximum water temperature	90 °C
Temperature setting range	4 to 28 °C
Measurement interval	Measures temperature every minute
Clock accuracy	+/- 10 min/year
Spindle movement	Linear, up to 4.5 mm, max. 2 mm on valve (1 mm/s)
Noise level	<30 dBA
Safety classification	Type 1
Open-window function	Activated at temperature decrease of approx. 0.5 °C over 3 min.
Weight (incl. batteries)	177 g (with RA adapter)
IP class	20 (not to be used in hazardous installations or in places where it will be exposed to water)
Approvals, markings etc.	   

Tested for safety and EMC requirements as specified in EN 60730-1, EN 60730-2-9 and EN 60730-2-14.

**Measuring the room temperature**

living connect<sup>®</sup> is measuring the temperature with two built-in sensors - a room sensor behind the display and a supply sensor near the valve. Based on both readings the room temperature is calculated for an area approx. 20 cm in front of the display. This allows living connect<sup>®</sup> to control the actual room temperature very accurately. If living connect<sup>®</sup> is affected by nearby sources of cold or heat, e.g. fireplace, direct sun or draft,

a Danfoss Link™ RS room sensor can be added to the system. The temperature measured on the RS placed in a distance of 1 to 5 m from the thermostat will then be used to control the room temperature.

*Note! The displayed temperature is always the set temperature, not the actual room temperature.*

**Main features**

**Wireless connection**

living connect<sup>®</sup> communicates wirelessly with the Danfoss Link™ CC central controller. If the connection is lost, living connect<sup>®</sup> will continue to control the room temperature and keep the set temperature as it was, when the connection failed.

**Open-window function**

living connect<sup>®</sup> features an Open-window function, which closes the valve if the room temperature is falling dramatically, thus reducing the heat loss. The heat is turned off for up to 30 minutes, before living connect<sup>®</sup> returns to its original settings. When Open-window has been activated, the function is quarantined for 45 minutes.

**Automatic valve exercising**

To keep the radiator valve functional and at its best, living connect<sup>®</sup> automatically exercises the valve every Thursday at approx. 11:00 hrs by opening it fully and then return to normal setting.

**Adjusting to the valve**

During the first night of operation living connect<sup>®</sup> will shut off the radiator heat and then open again to detect the exact opening point of the valve. This will allow living connect<sup>®</sup> to control the heat as efficiently as possible. If necessary, the procedure is repeated once a night for up to a week. You might experience the valve being warm during the adjustment procedure, regardless of the room temperature.

**Intelligent Control (Forecast)**

During the first week of operation living connect<sup>®</sup> learns when it is necessary to start heating the room in order to reach the correct temperature at the correct time. The intelligent control will continuously adjust the heating time compared to seasonal temperature changes.

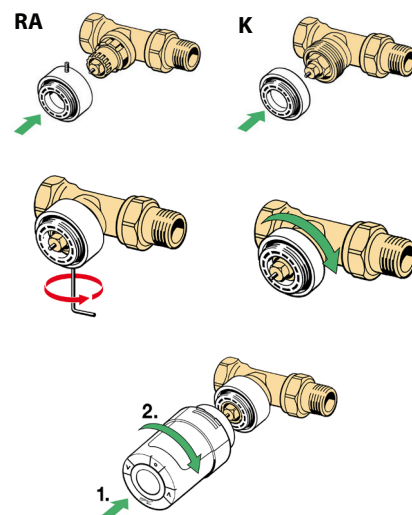
**Child lock**

Activating the child lock feature will protect the settings from tampering.

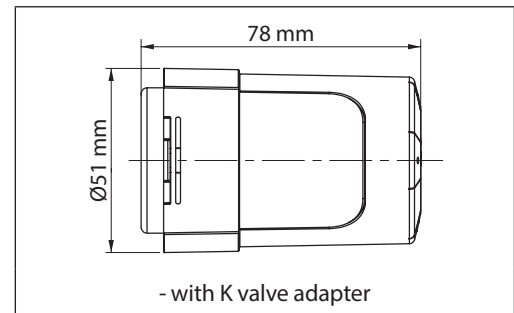
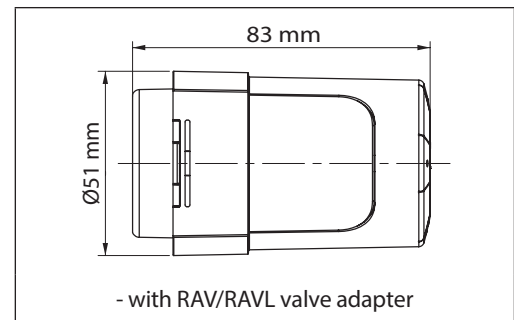
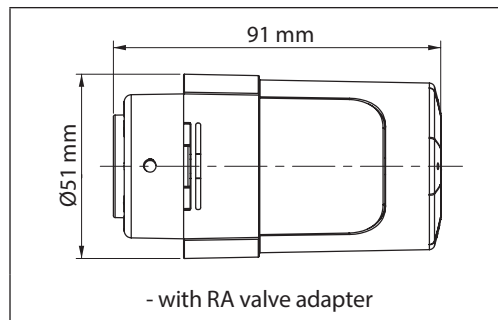
**Installation**

⌘ must be flashing on the display before installation.

1. Start by mounting the appropriate adapter.
2. Tighten RA adapter using the 2 mm Allen key. Hand-tighten K adapter (max. 5 Nm).
3. Screw the thermostat onto the adapter and tighten by hand (max. 5 Nm).
4. A large ⌘ flashes, press to fix living connect<sup>®</sup>.



## Dimensions



To see the full installation and user guide go to [www.living.danfoss.eu](http://www.living.danfoss.eu), choose "For professionals" and then "Technical literature".

Or see videos on [www.youtube.com](http://www.youtube.com) about installation and programming of *living connect*<sup>®</sup> - search for Danfoss living connect.

**Danfoss A/S**

Heating Solutions  
Haarupvaenget 11  
8600 Silkeborg  
Denmark

Phone: +45 7488 8000

Fax: +45 7488 8100

Email: [heating.solutions@danfoss.com](mailto:heating.solutions@danfoss.com)

[www.heating.danfoss.com](http://www.heating.danfoss.com)